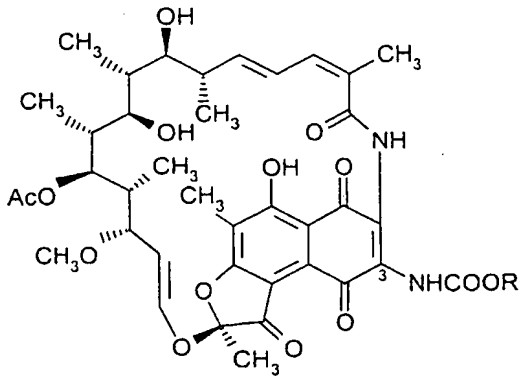
Claims

1. N-(3-rifamycinyl)-carbamates of the formula I



(I)

and their corresponding hydroquinones,
wherein R is C_1-C_6-alkyl, mono- or polyhalogenated C_1-C_6-alkyl, C_1-C_6-alkenyl, mono- or polyhalogenated C_1-C_6-alkenyl, triphenylphosphonio-C_1-C_6-alkyl halogenide, menthyl, 9-fluorenylmethyl, piperidyl, or aryl which may be unsubstituted or substituted with one or more of the following groups independently comprising nitro, C_1-C_3-alkoxy, C_1-C_3-alkylthio, C_1-C_3-alkoxycarbonyl, di(C_1-C_3-alkylamino), halogen
or salts thereof.

2. Carbamates of claim 1, wherein
R is C_1-C_4-alkyl, preferably methyl, ethyl, butyl or isobutyl.

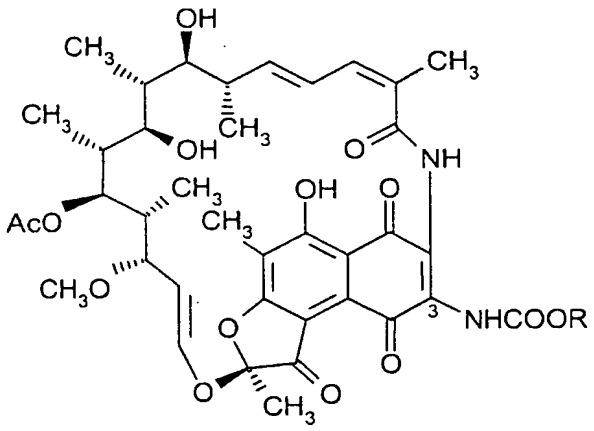
3. Carbamates of claim 1, wherein
R is mono- or polyhalogenated C_1-C_4-alkyl, preferably chloromethyl, 2-chloroethyl, 2-bromoethyl, 2,2,2-trichloroethyl or 2,2,2-trichlor-tert-butyl.

4. Carbamates of claim 1, wherein
R is C_1-C_3-alkenyl, preferably vinyl or allyl.

5. Carbamates of claim 1, wherein R is unsubstituted aryl, preferably benzyl or phenyl.

6. Carbamates of claim 1, wherein
R is 4-Nitrobenzyl, 4-Nitrophenyl, 4-methoxycarbonyl phenyl, or 6-nitroveratryl.

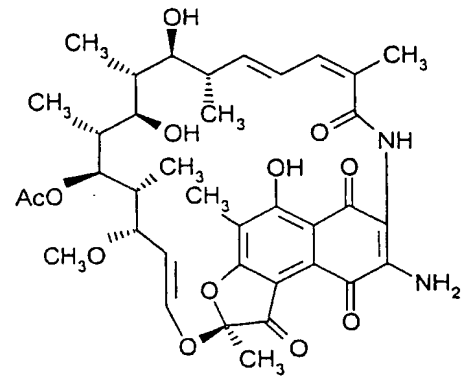
7. A method of preparing a N-(3-rifamycinyl)-carbamate according to formula I



(I)

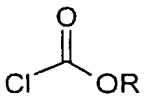
and their corresponding hydroquinones,
wherein R is C_1-C_6-alkyl, mono- or polyhalogenated C_1-C_6-alkyl, C_1-C_6-alkenyl, mono- or polyhalogenated C_1-C_6-alkenyl, triphenylphosphonio-C_1-C_6-alkyl halogenide, menthyl, 9-fluorenylmethyl, piperidyl, or aryl which may be unsubstituted or substituted with one or more of the following groups independently comprising nitro, C_1-C_3-alkoxy, C_1-C_3-alkylthio, C_1-C_3-alkoxycarbonyl, di(C_1-C_3-alkylamino), halogen

characterized in that 3-amino rifamycin S of formula II



(II)

is reacted with a chloroformate of formula III



(III)

wherein R has the above meanings,
in an organic solvent in the presence of a strong base, and optionally the obtained quinone compound of formula I is reduced to give the corresponding hydroquinone.

8. The method according to claim 7,
characterized in that
as a strong base a tertiary amine, preferably triethylamine is used.

9. The method according to claim 7,
characterized in that
as organic solvent dichloromethane, ethylacetate or tetrahydrofurane is used.

10. Use of N-(3-rifamycinyl)-carbamates of formula I of claim 1 for treating or preventing a mycobacterial infection.

11. Use of N-(3-rifamycinyl)-carbamates of formula I of claim 1 for the production of a pharmaceutical preparation for treating or preventing a mycobacterial infection.

12. Use of compounds according to claim 10 for treating or preventing tuberculosis.

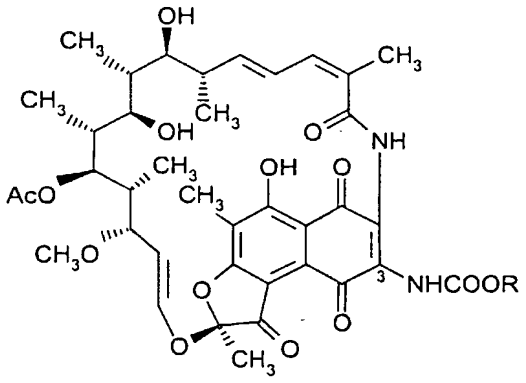
13. Use of compounds according to claim 11 for the production of a pharmaceutical preparation for treating and preventing tuberculosis.

14. Use of N-(3-rifamycinyl) carbamates of formula I of claim 1 for the production of a pharmaceutical preparation for treating or preventing a microbial infection with ordinary (non-mycobacterial) bacteria, preferably *Bacillus subtilis*,

Escherichia coli, *Bacillus myocide*, *Klebsiella pneumoniae* and/or *Pseudomonas aeruginosa*.

15. Use of N-(3-rifamycinyl) carbamates of formula I of claim 1 for treating or preventing a microbial infection with ordinary (non-mycobacterial) bacteria, preferably *Bacillus subtilis*, *Escherichia coli*, *Bacillus myocide*, *Klebsiella pneumoniae* and/or *Pseudomonas aeruginosa*.

16. A composition for treating or preventing a mycobacterial infection and/or a microbial infection with ordinary (non-mycobacterial) bacteria comprising an anti-mycobacterial and/or anti-bacterial effective amount of a compound of formula I



(I)

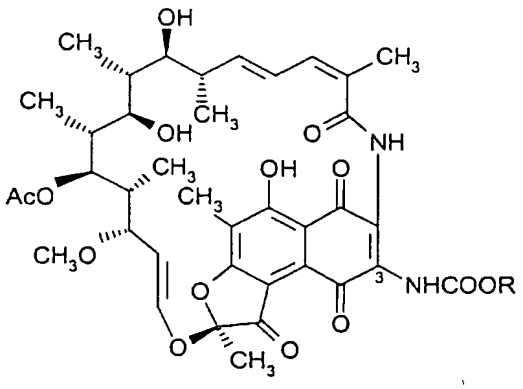
or its corresponding hydroquinone,
wherein R is C_1-C_6-alkyl, mono- or polyhalogenated C_1-C_6-alkyl, C_1-C_6-alkenyl, mono- or polyhalogenated C_1-C_6-alkenyl, triphenylphosphonio-C_1-C_6-alkyl halogenide, menthyl, 9-fluorenylmethyl, piperidyl, or aryl which may be unsubstituted or substituted with one or more of the following groups independently comprising nitro, C_1-C_3-alkoxy, C_1-C_3-alkylthio, C_1-C_3-alkoxycarbonyl, di(C_1-C_3-alkylamino), halogen

or a pharmaceutically acceptable salt thereof

and a pharmaceutically acceptable carrier therefore.

17. A composition according to claim 16 comprising from about 0.05 mg to about 1000 mg, preferably from about 0.1 mg to about 500 mg, especially preferred from about 1 mg to about 200 mg of the compound according to formula I.

18. A method for preventing or treating a mycobacterial infection and/or a microbial infection with ordinary (non-mycobacterial) bacteria in a mammal comprising administering to a mammal in need of anti-mycobacterial and/or anti-bacterial prevention or treatment an effective anti-mycobacterial and/or antibacterial amount of at least one compound of formula I



(I)

or its corresponding hydroquinone,

wherein R is C_1-C_6-alkyl, mono- or polyhalogenated C_1-C_6-alkyl, C_1-C_6-alkenyl, mono- or polyhalogenated C_1-C_6-alkenyl, triphenylphosphonio-C_1-C_6-alkyl halogenide, menthyl, 9-fluorenylmethyl, piperidyl, or aryl which may be unsubstituted or substituted with one or more of the following groups independently comprising nitro, C_1-C_3-alkoxy, C_1-C_3-alkylthio, C_1-C_3-alkoxycarbonyl, di(C_1-C_3-alkylamino), halogen

or a pharmaceutically acceptable salt thereof

and a pharmaceutically acceptable carrier therefore.